2004 National Air Quality Conference

Tough Questions…

Good Answers

<u>Question 1.)</u> What do you do when it's forecasted to be Code Orange for both PM2.5 and Ozone? What is the health-based message to the public?

- **Should PM trump the Ozone message because PM can stay high all day?**

- **Is indoor PM really the same as outdoor ambient PM?**

<u>Good Answer 1.):</u> Same message. Combine messages for PM and Ozone to cover both groups – respiratory and cardiovascular.

PM message covers both.

There may be a target window for outdoor activity – NC is brainstorming possibility of asking sensitive groups to simply reduce exercise.

Double orange/red may not occur very often for most agencies.

Only get a few seconds from the media. Can't get too specific.

Only 12% of Canadians exercise more than a half-hour three times per week. Partner with fitness clubs and fitness publications to get the message out to individuals who exercise frequently.

What about construction workers and other outdoor workers who have little choice?

Create a card that has AQI and actions to protect health.

Get the message out to athletic programs, schools, daycares, etc.

EVERYONE should reduce/avoid strenuous activity when PM and Ozone are in orange/red category.

<u>Question 2.)</u> How do you balance the "reduce exertion" message with an increasingly inactive/obese population who would benefit from daily exercise?

<u>Good Answer 2.)</u> Some regions have bad air quality mostly when weather is hot and humid. Fewer occurrences of high PM days.

When air quality is good, promote exercise. Have a message for the GOOD days.

Encourage individuals to recognize their limits and to consult their health care provider.

It's a challenge to get the media to cover the actions and not just the "codes".

Message to not exercise today infers that you should tomorrow.

Partner with health community. We can't do it all.

Health community sees increases in hospital admissions on days that are low ozone in the fall and reduced numbers in summer. AQI doesn't cover every health situation, i.e. indoor air.

When standards change, how do we explain that to our audience and the media. Say "Chet moved the target".

Air quality was much worse in the past.

Canada has had doctors come to explain how the body reacts to poor air quality. Reduces reserve capacity. lung function Gives perspective to forecasters.

<u>Question 3.)</u> How should R/S/L/T agencies handle the issue of forecast accuracy? Should missed forecasts be acknowledged/publicized? Should public notification of a missed forecast depend on the directionality of the miss (i.e., called USG & got Moderate vs. predicted Moderate & got USG)? Should agencies post verification statistics at the end of a forecasting season (or end of year)?

<u>Good Answer 3.)</u> Good thing if observed is lower than forecast. Opportunity to tell public they helped.

Can explain why missed – hit further north.

Verification stats should be posted. We aren't perfect, but we do well.

Hesitation to "take credit". Could be the weather.

Forecasters have to track stats to know if they are doing well and what needs improvement.

Relate to accuracy of weather forecasts.

Mapping challenges us, since it can show what actually happened. Need to acknowledge the good and the bad for credibility with the public.

Disagree with posting verification stats. One monitor might verify, but six others may not. Other area might

have only two. Difficulty with monitor density and large MSAs.

So many actions triggered by forecasts – transportation, etc. Sometimes don't call for advisories at marginal levels; err on side of caution since so many programs may kick in.

Other agencies err on side of better health protection, since their action days don't trigger as many changes in daily routine.

Always a policy issue. We're as accurate as the weather information, since we use it. Caution needed in presenting the verification data. It may be difficult to interpret.

The public is not upset when a tornado or snow does not "verify". This is about a warning. Conditions are ripe for poor air quality.

Hopefully, everyone does verification, whether shown to public or not, to evaluate their program and look for areas of improvement.

Statistics drive improvements in technology. AQ forecasting is a young science.

Ban on construction during Spare the Air days. Brings even more scrutiny on forecasts.

Need to look at what we're doing with our forecasts. Ranges from AQI reporting to triggering major action programs. Different agencies kick off action days with different number of monitors showing poor AQ.

Actions taken on one day may not immediately affect air quality.

Use forecasts to ask power plants to use episodic controls.

Is there a need for guidance on what level should trigger action programs with major economic impacts, i.e. at red?

Strict on Code Orange days because it could mean the difference between attainment and nonattainment.

Most NE states don't get to red. Idea is to keep from getting to red and to stay in attainment. Call action programs on orange.

Is there a move within EPA to formalize alert programs as the original CAA did?

When counting number of action days, we should account for calling them at different levels

<u>Question 4.)</u> How is the NOAA forecast guidance going to be coordinated with the State & Local forecasters in terms of public distribution?

<u>Great Answer 4.)</u> Will have products this summer.

Will be available from NOAA and AIRNow.

Could the model conflict with local forecasters and cause confusion with media partners?

Local meteorologist will have to closely interact with local media. Good communication is essential.

Just as with weather, TV forecasters can explain why they might deviate from the modeled forecast.

Forecasters interpret the NOAA model. It is intended to be guidance.

Media can't simply go with model, since action programs could be affected.

<u>Question 5.)</u> There may be inconsistencies between the way State and local agencies report the latest AQI on websites and/or recorded phone messages. Is there any effort underway to reconcile the official AQI reporting guidance with the methodology used to report the AQI on AIRNow.

<u>Good Answer 5.)</u> Graphical product that shows yesterday's AQI (as of certain time) and tomorrow's forecast.

Get Conroy implemented.

Maps may show differences, since surrogate is used for real-time PM2.5 maps. Also happens with ozone. Public sometimes picks up on that.

Differences in contours between regional and national maps.

Biggest controversy is with newspapers. They have to go to press, often before our peak values occur. Could report a projection, but that has some issues. How does NWS handle this, i.e. with rainfall? WSPs may be handling the issue.

In emergency events, media and the public pay closer attention to forecasts and check more often.

Forecast is more health protective than yesterday's AQI.

AIRNow website gets comments when data does not agree with State and local data. Confusion sometimes when defaults are left on.

AccuWeather puts paper to bed at 7PM PST. Peaks are later. Some report 6-hour average at 4:30PM.

<u>Question 6.)</u> How can we integrate public information on regional haze at national parks and wilderness areas in AIRNow?

<u>Good Answer 6.)</u> Hot link National Park map to show web cams? Visibility forecasts? Get more AQ forecasts from parks?

<u>Question 7.)</u> What are EPA's plans to release a shorter-term AQI for PM2.5 to make it more comparable to the timeframe used for Ozone?

<u>Good Answer 7.)</u> Don't have the data and the research is not complete. Could the AQI be a health-based tool and not as tied to NAAQS?

Going through a NAAQS review right now. Five year process, at a minimum.

<u>Question 8.)</u> What are EPA's plans to make a continuous sampling method a Federal reference method?

<u>Question 9.)</u> What comes after PM – i.e., toxics, emergency response, meteorological data, homeland security?